

AMENDMENTS TO THE CLAIMS

Please cancel claims 1-17 in the specification, and add claims 18-45 below.

18. (New) A multi-partition computer system, comprising:
a plurality of cell boards, with each cell board including at least one main processor;
and
a service processor that is connected to each of the cell boards;
wherein each partition includes at least one cell board, each partition is prevented from accessing memory of a different partition, the service processor can command the operations of the partitions, and the service processor can reset a partition.
19. (New) The computer system of claim 18, wherein:
each partition is running an operating system that is independent of the other partitions.
20. (New) The computer system of claim 18, wherein:
the service processor communicates with the cell boards via at least one USB format bus.
21. (New) The computer system of claim 18, wherein:
each cell board may be replaced while the computer system is on-line.
22. (New) The computer system of claim 18, wherein:
the service processor manages configuration of the partitions.

23. (New) A multi-partition computer system, comprising:
a plurality of cell boards, with each cell board including at least one main processor;
and
a service processor that is connected to each of the cell boards;
wherein each partition includes at least one cell board, and the service processor manages operations of the partitions, and each partition is prevented from accessing memory of a different partition, and
the service processor monitors power requirements and determines whether a new component may be added to the system based upon the power required for the new component.

24. (New) The computer system of claim 23, wherein:
the service processor can command the operations of the cell boards.

25. (New) A multi-partition computer system, comprising:
a plurality of cell boards, with each cell board including at least one main processor;
and
a service processor that is connected to each of the cell boards;
wherein each partition includes at least one cell board, the service processor manages operations of the partitions, each partition is prevented from accessing memory of a different partition, and the service processor monitors log events.

26. (New) The computer system of claim 25, wherein:
the service processor displays selected log events to a user.

27. (New) A multi-partition computer system, comprising:
a plurality of cell boards, with each cell board including at least one main processor;
and
a service processor that is connected to each of the cell boards;
wherein each partition includes at least one cell board, the service processor manages operations of the partitions, each partition is prevented from accessing memory of a different partition, and the service processor monitors status of the cells.

28. (New) The computer system of claim 27, wherein:
the service processor facilitates JTAG scan testing of the computer system.
29. (New) The computer system of claim 27, wherein:
the service processor displays the status of the cells to a user.
30. (New) The computer system of claim 27, wherein:
the service processor monitors environmental condition of the cells.
31. (New) A multi-partition computer system, comprising:
a plurality of cell boards, with each cell board including at least one main processor;
and
a service processor that is connected to each of the cell boards;
wherein each partition includes at least one cell board, the service processor manages
operations of the partitions, each partition is prevented from accessing memory of a different
partition, and the service processor updates firmware resident in the cells.
32. (New) A method for operating a computer system having a plurality of
partitions and a plurality of cell boards, with each cell board including at least one main
processor, wherein each partition includes at least one cell board, the method comprising:
providing a service processor that is connected to each of the cell boards;
managing operations of the partitions via the service processor;
preventing each partition from accessing memory of a different partition;
commanding the operations of the partitions via the service processor; and
resetting at least one partition via the service processor.
33. (New) The method of claim 32, further comprising:
running an operating system on each partition that is independent of the other
partitions.
34. (New) The method of claim 32, further comprising:
using at least one USB format bus to provide communications between the service
processor and the cell boards.

35. (New) The method of claim 32, further comprising:
replacing at least one cell board while the computer system is on-line.

36. (New) The method of claim 32, further comprising:
managing the configuration of the partitions via the service processor.

37. (New) The method of claim 32, wherein:
maintaining security for the computer system via the service processor;
wherein the service processor limits access to authorized users.

38. (New) A method for operating a computer system having a plurality of partitions and a plurality of cell boards, with each cell board including at least one main processor, wherein each partition includes at least one cell board, the method comprising:
providing a service processor that is connected to each of the cell boards;
managing operations of the partitions via the service processor;
preventing each partition from accessing memory of a different partition;
monitoring the power requirements via the service processor; and
determining, via the service processor, whether a new component may be added to the system based upon the power required for the new component.

39. (New) The method of claim 38, further comprising:
commanding the operations of the cell boards via the service processor.

40. (New) A method for operating a computer system having a plurality of partitions and a plurality of cell boards, with each cell board including at least one main processor, wherein each partition includes at least one cell board, the method comprising:
providing a service processor that is connected to each of the cell boards;
managing operations of the partitions via the service processor;
preventing each partition from accessing memory of a different partition; and
monitoring log events via the service processor.

41. (New) The method of claim 40, further comprising:
displaying selected log events to a user, via the service processor.

42. (New) A method for operating a computer system having a plurality of partitions and a plurality of cell boards, with each cell board including at least one main processor, wherein each partition includes at least one cell board, the method comprising:

- providing a service processor that is connected to each of the cell boards;
- managing operations of the partitions via the service processor;
- preventing each partition from accessing memory of a different partition; and
- monitoring the status of the cells via the service processor.

43. (New) The method of claims 42, further comprising:
displaying the status of the cells to a user via the service processor.

44. (New) The method of claim 42, further comprising:
monitoring the environmental condition of the cells via the service processor.

45. (New) A method for operating a computer system having a plurality of partitions and a plurality of cell boards, with each cell board including at least one main processor, wherein each partition includes at least one cell board, the method comprising:

- providing a service processor that is connected to each of the cell boards;
- managing operations of the partitions via the service processor;
- preventing each partition from accessing memory of a different partition; and
- updating firmware resident in the cells via the service processor.